

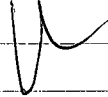
Work Order ID 91666

October-12-12 11:36:46 AM

91666

Page 1

Item ID: 647.1915E Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Support Angle
 Start Date: 10/12/12 Start Qty: 180.00 ***180*** Cust Item ID:
 Required Date: 11/02/12 Req'd Qty: 180.00 ***180*** Customer:
 Reference:

Approvals: Process Plan:  Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
647.7300	

100	PURCHASING	0.00							
100									
Purchasing	Memo	0.00							
Purchasing	Issue P/O: <u>18110</u>								
	a) Description: EXTRUSION FOR BRACKET								
	e) Material: 7075-T6								
	f) Material certification required								

CZ 12/10/12 180

110	Receive & Inspect for Damage & Mat'l Certs	0.00							
110									
Packaging	Memo	0.00							
Packaging	Ensure material certification is attached								

12/16/30 (216)

120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	Memo	0.00							
Quality Control	Ensure Material certification comply to Dwg 646.9800								

12/12/04

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube			General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio			<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions			<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other		

Work Order ID 91666

October-12-12 11:36:46 AM

91666

Page 2

Item ID: 647.1915E Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Support Angle
 Start Date: 10/12/12 Start Qty: 180.00 ***180*** Cust Item ID:
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: <u>MAT</u> <u>036</u> Memo	0.00 0.00		<u>FK 12/12/05</u>		<u>216</u>	<u>0</u>		
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							

12/12/05
ML5 12-12-05

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
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Picklist Print

October-12-12 11:36:46 AM

Page 1

Work Order ID: 91666

Parent Item: 647.1915E

Parent Item Name: Support Angle

Start Date: 10/12/12

Required Date: 11/02/12

Start Qty: 180.00

Required Qty: 180.00

Comments: IPP REV:A NEW ISSUE 12-10-12 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
647.1915P Support Angle		Purchased	No				f	0.0000		180		12/12/12	(216)

NCR: Yes / No

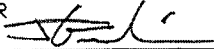
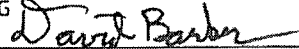
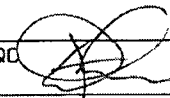
WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
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Training											
Unapproved											

FAULT CATEGORY				
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other	

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03699				SHEET 1 OF 1	
	DWG NO. 647.1900	REV: N/C	PREPARED BY B. PETERS	DATE: 11/15/12	EFFECT ON DWG <input type="checkbox"/> INC. <input checked="" type="checkbox"/> UNINC.	
	DWG TITLE: BRACKETS					
	APPROVED BY: ENGR 	MFG 	QC 	EFF: NEXT ORDER		
TRANSACTION CODES (TC) A-ADD C-CREATE R-REVISE D-DELETE	REASON: ADDED ALTERNATE MATERIAL.				ECR: D-12-018	

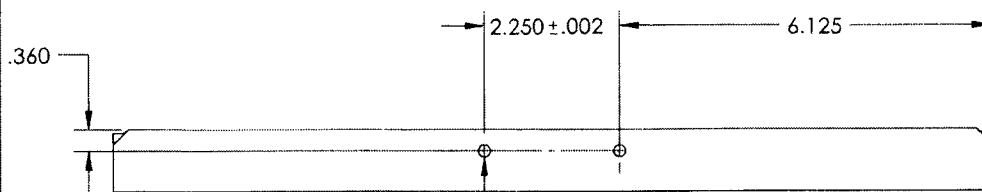
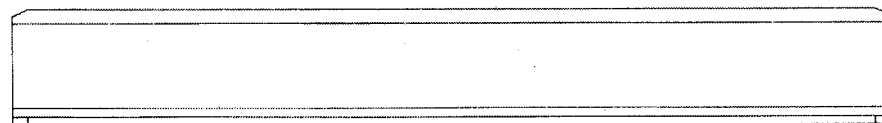
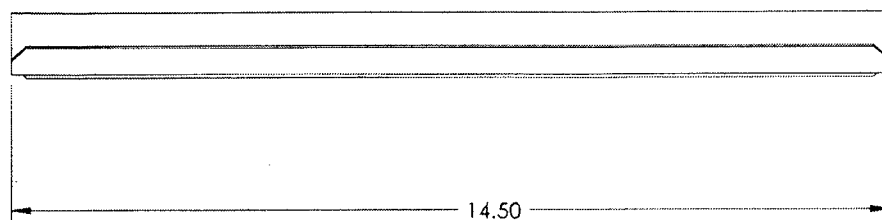
IS

⚠ PRIMARY MATERIAL: 7075-T651 ALUMINUM PER AMS-QQ-A-250/12.
ALTERNATE MATERIAL: 7075-T6511 ALUMINUM PER AMS-QQ-A-200/11.

SHEET 1, ZONE A2 IS:

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED
<input type="checkbox"/> RFMS <input type="checkbox"/> MDL <input type="checkbox"/> INSTALL INSTRUCC <input type="checkbox"/> ICA <input type="checkbox"/> BOM					<input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

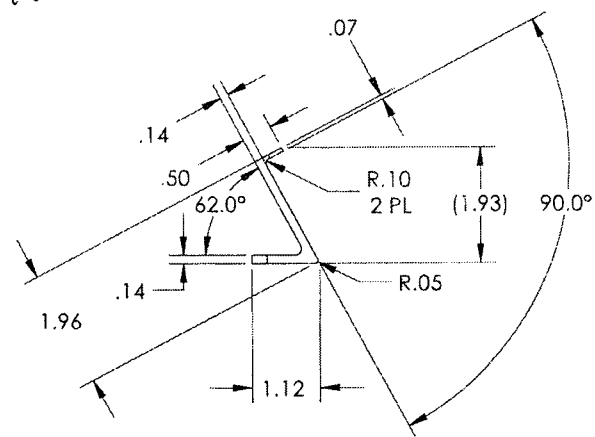
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.



Ø.201 THRU
2 PL

also 91666

647.1915



[Handwritten signature]

ORIGINAL DATE 01/01/91		APICAL INDUSTRIES	
DRAWN BY: J. GARDNER		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: P. BRAVO		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL P. BRAVO		BRACKETS	
CONTRACT NO.		ITEM CODE 8 07MA26	REV N/C
DRESS OTHERS AS SPEC'D DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACES DECIMALS ± .01 ALL ANGLES 3°		QTY NO 647.1900	SHEET 5 OF 5
SCALE: NONE			

SHIPPER NO.

405917-1

UACPART NO.

66740

UNIVERSAL ALLOY CORPORATION
 180 LAMAR HALEY PKWY CANTON, GA USA 30114
 (770) 479-7230

PRODUCTION LOTS

C554404 @18 PCS

S
H DART AEROSPACE
I 1270 ABERDEEN
P
HAWKESBURY, ONTARIO CN, K6A 1K7

S
O DART AEROSPACE
L 1270 ABERDEEN
D
HAWKESBURY, ONTARIO CN, K6A 1K7

27/320

CUSTOMER'S P.O. NO.

PO18110 item 4

ORDER PLACED BY

LINDA LACELLE

CUSTOMER'S PART NUMBER

647.1915-EXT ALUMINUM EXTRUSION

TERMS

NET 60

ALLOY

7075 T6

SPECIFICATION NO.

AMS-QQ-A-200/11 REV. N/C

SHIP VIA

JOURNEY

DATE SHIPPED

11/21/2012

FREIGHT CHARGES

PREPAID ☒ COLLECT ☐

SHIPMENT

PARTIAL ☐ COMPLETE ☒

CERTIFICATIONS

ATTACHED ☒ TO FOLLOW ☐**QUANTITY SHIPPED**

FEET	PIECES X LENGTH	NET PER PC	NET POUNDS	GROSS POUNDS	BOX
16	18 X 144.	6.78	122	174	1 bundle of 1 Standard US box

RECEIVED BY

DATE

TIME

UNIVERSAL ALLOY CORPORATION ACCEPTS NO RESPONSIBILITY FOR ERROR IN SHIPMENT IF YOU FAIL TO NOTIFY US WITHIN 3 DAYS OF RECEIPT. NO REJECTED MATERIAL WILL BE ACCEPTED FOR CREDIT OR REPLACEMENT AFTER 30 DAYS FROM DATE OF RECEIPT.

SHIPPER NO.

405917-1

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S
H DART AEROSPACE
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JOURNEY

DATE SHIPPED

11/21/2012

FREIGHT CHARGES

PREPAID ☒ COLLECT ☐

SHIPMENT

PARTIAL ☐ COMPLETE ☒

CERTIFICATIONS

ATTACHED ☒ TO FOLLOW ☐**QUANTITY SHIPPED**

FEET	PIECES X LENGTH	NET PER PC	NET POUNDS	GROSS POUNDS	BOX
216	18 X 144.	6.78	122	174	1 bundle of 1 Standard US box

RECEIVED BY

DATE

TIME

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UNIVERSAL ALLOY CORPORATION

180 LAMAR HALEY PKWY CANTON, GA 30114 (770) 479-7230

EXTRUSION MILL CERTIFICATE OF CONFORMANCE INSPECTION AND TEST REPORT

CUSTOMER DART AEROSPACE LTD

PURCHASE ORDER PO18110 item 4 DATE 11/15/12

ORDER NUMBER 405917 PART NO. 647.1915-EXT rev N/C

SPECIFICATIONS AMS-QQ-A-200/11 REV. N/C MATERIAL 7075-T6

MECHANICAL PROPERTIES

SAMPLE OR LOT	TEST DIRECTION	TEST LOCATION	TENSILE STRENGTH KSI	YIELD STRENGTH KSI	ELONGATION %
C554404	L	Rear	88.0	80.0	12.1

812/12/14

MANUFACTURED IN THE U.S.A.

CHEMICAL COMPOSITION LIMITS

ALLOY NOS	SI	FE	CU	MN	MG	CR	ZN	TI	EACH	OTHERS	TOTAL
7075	0.40	0.50	1.2-2.0	0.30	2.1-2.9	0.18-0.28	5.1-6.1	0.20	0.05		0.15

THIS IS TO CERTIFY THAT THE MATERIAL APPLIED TO THE ABOVE ORDER COVERED BY THIS REPORT HAS BEEN INSPECTED IN ACCORDANCE WITH THE SPECIFICATIONS DESCRIBED FORMING A PART OF THIS ORDER AND THAT REPRESENTATIVE MATERIAL HAS BEEN TESTED AND FOUND TO MEET THE APPLICABLE REQUIREMENTS. FURTHER SHOWN ARE THE COMPOSITION LIMITS AND MECHANICAL PROPERTY TEST RESULTS. DOCUMENTATION VERIFYING CONFORMANCE TO THESE REQUIREMENTS IS ON FILE AND SUBJECT TO EXAMINATION.

PERCENT MAXIMUM UNLESS SHOWN OTHERWISE
REMAINDER ALUMINUM

UNIVERSAL ALLOY CORPORATION


Mark Briguglio Metallurgical Lab Manager
QUALITY ASSURANCE DEPARTMENT



554404T04